

09/657448

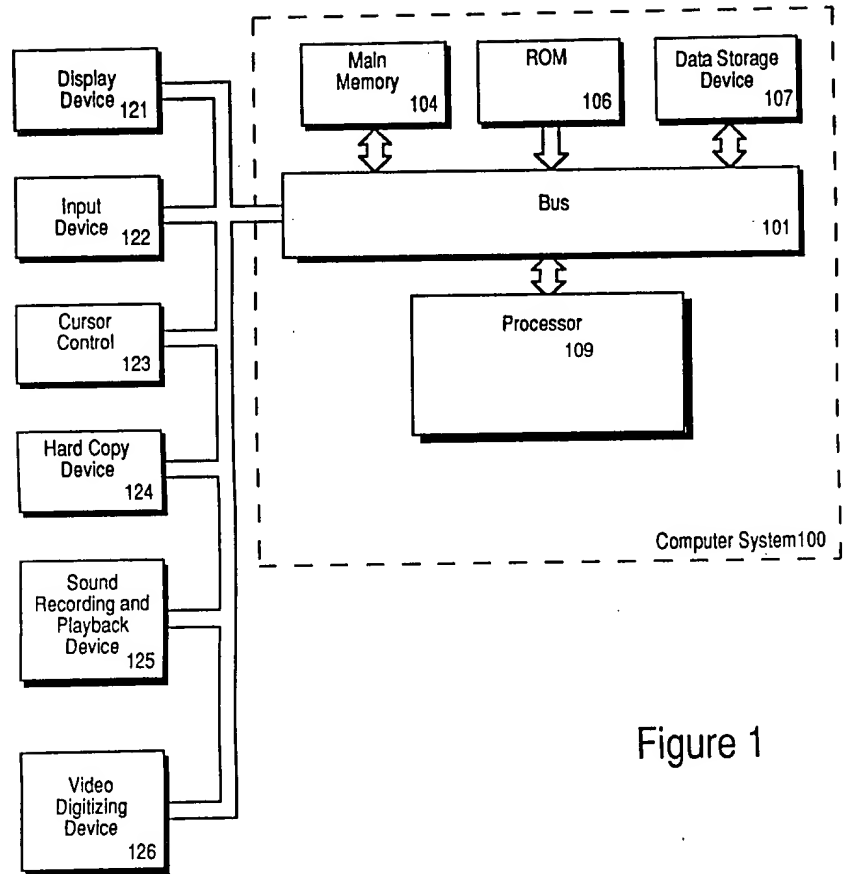


Figure 1

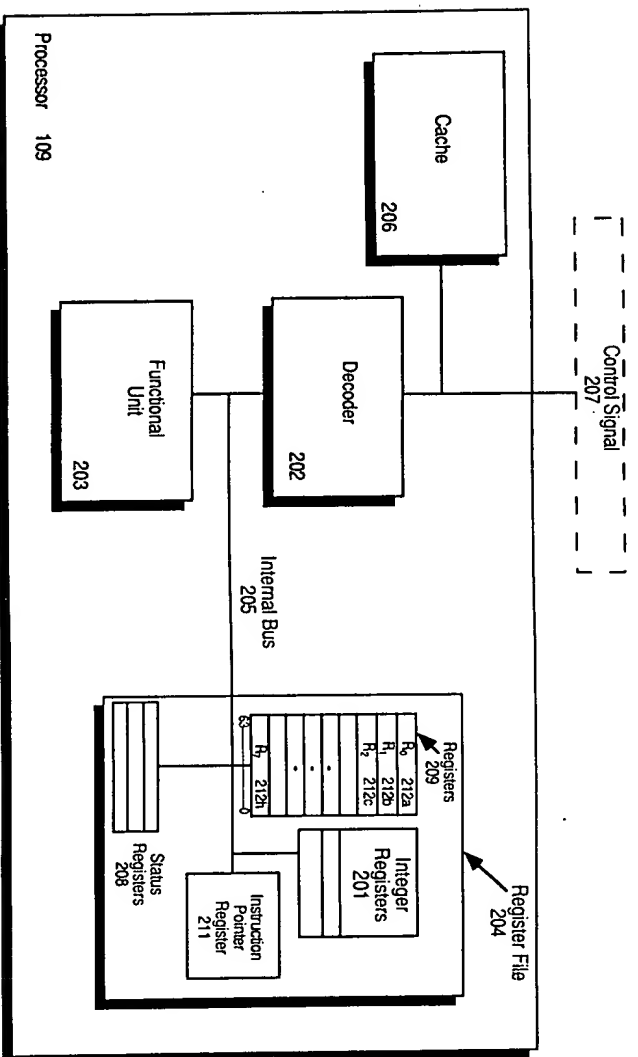


Figure 2

00000000000000000000000000000000

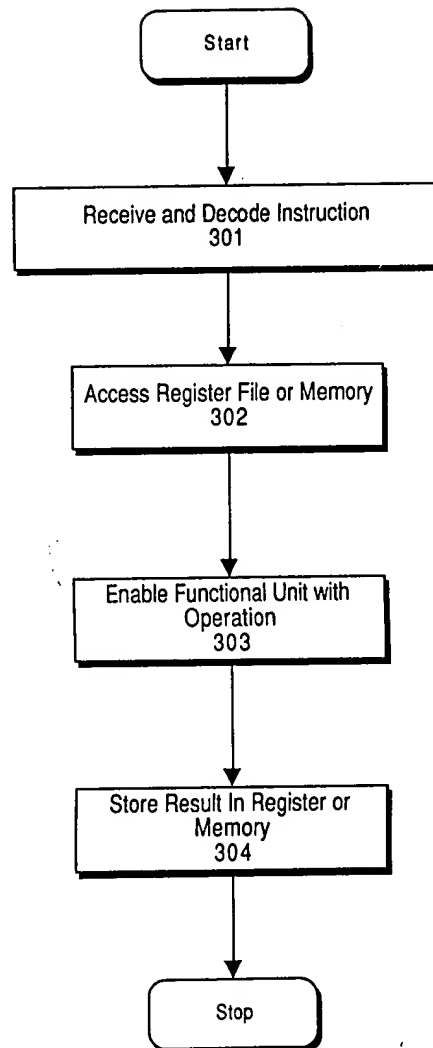


Figure 3

2003

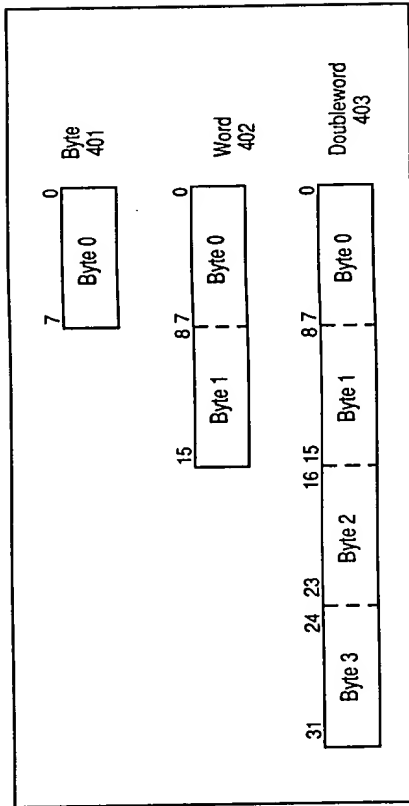


Figure 4a

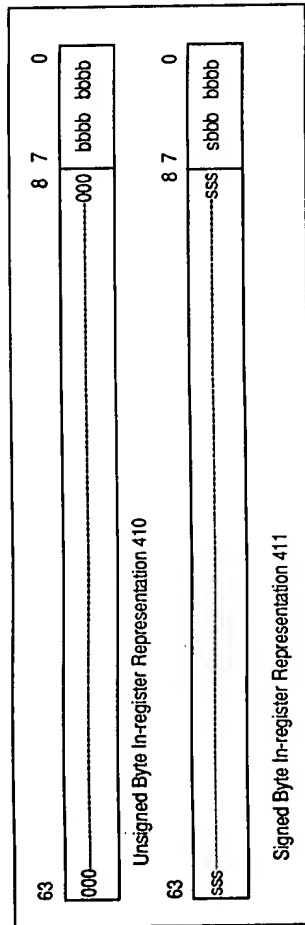


Figure 4b

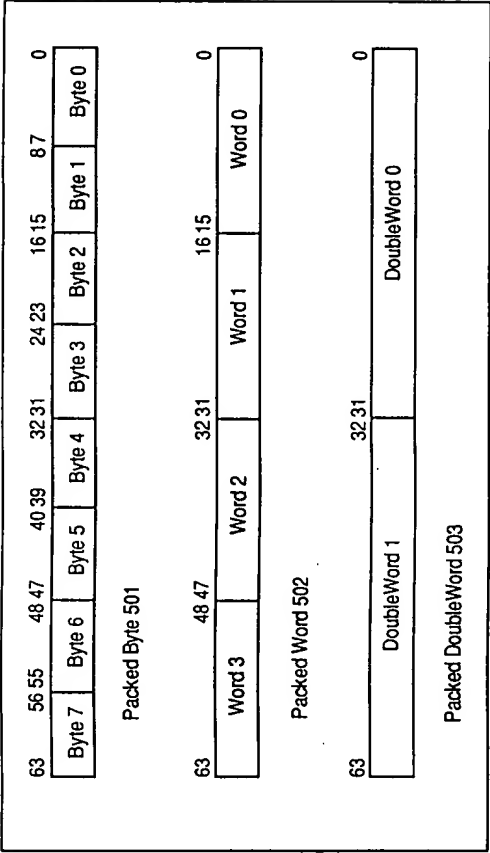


Figure 5a

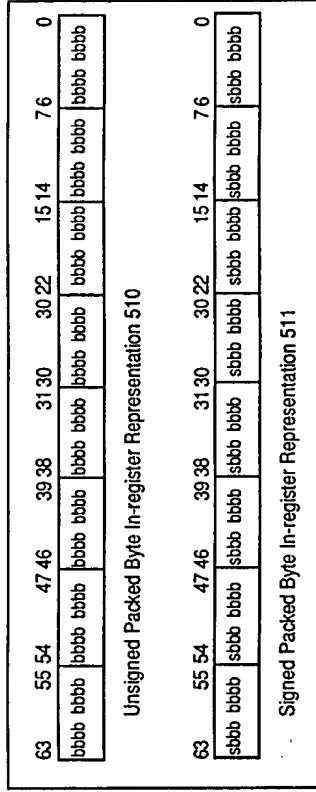


Figure 5b

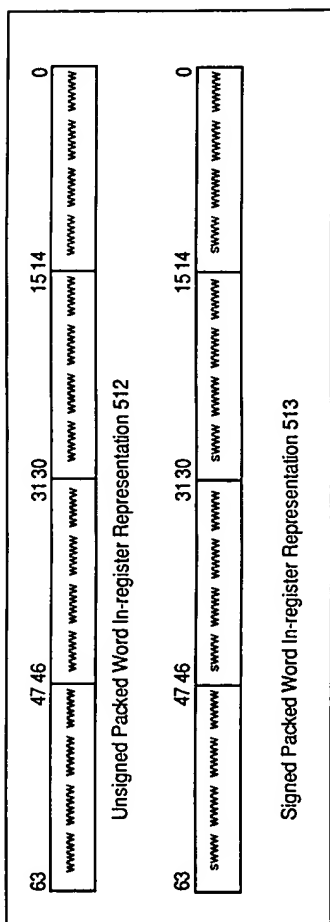


Figure 5c

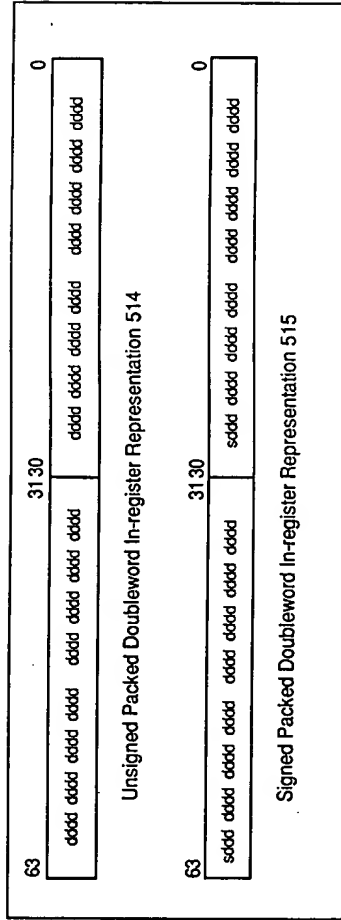


Figure 5d

OP	SRC1	SRC2	SZ	T	S	DEST
601	602	603	610	611	612	605

Figure 6b

```

graph TD
    Start([Start]) --> 701[Decode Control Signal  
701]
    701 --> 702[Access Data at SRC1 & SRC2  
702]
    702 --> 703[Enable Functional Unit with Pack  
Operation (Size, Saturation, Signed)  
703]
    703 --> 710{Size?  
710}
    710 -- Word --> 712[Result[7:0] = Source1[7:0]  
or Saturate  
Result[15:8] = Source1[23:16]  
or Saturate  
Result[23:16] = Source1[39:32]  
or Saturate  
Result[31:24] = Source1[63:56]  
or Saturate  
Result[39:32] = Source2[7:0]  
or Saturate  
Result[47:40] = Source2[23:16]  
or Saturate  
Result[55:48] = Source2[39:32]  
or Saturate  
Result[63:56] = Source2[63:56]  
or Saturate  
712]
    710 -- Doubleword --> 714[Result[15:0] = Source1[15:0]  
or Saturate  
Result[31:16] = Source1[47:32]  
or Saturate  
Result[47:32] = Source2[15:0]  
or Saturate  
Result[63:48] = Source2[47:32]  
or Saturate  
714]
    712 --> 720[Store Result at DEST  
720]
    714 --> 720
    720 --> Stop([Stop])

```

Figure 7



Stop

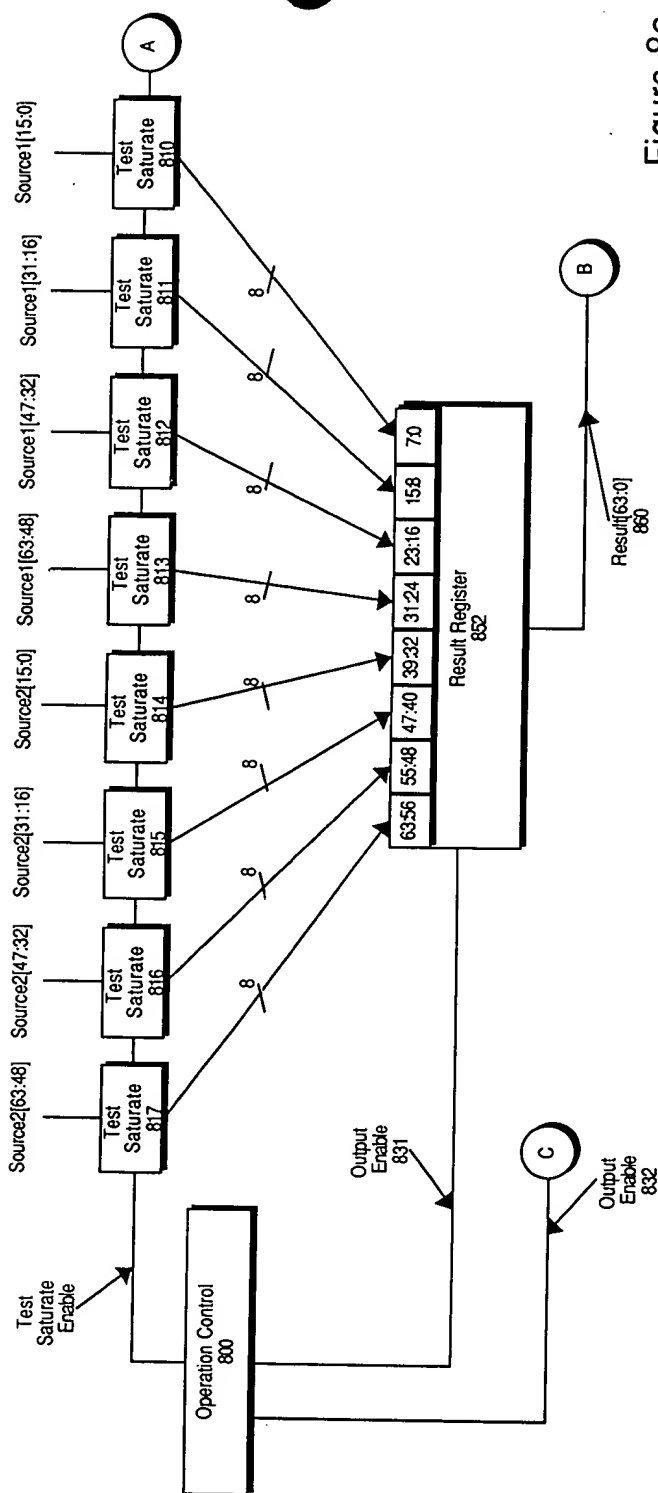


Figure 8a

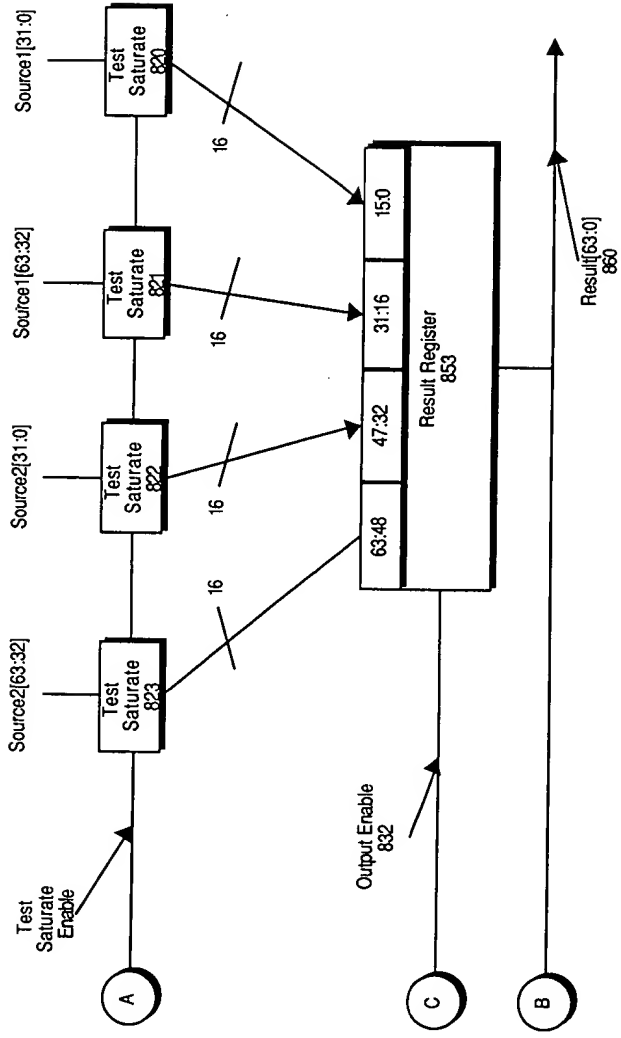


Figure 8b

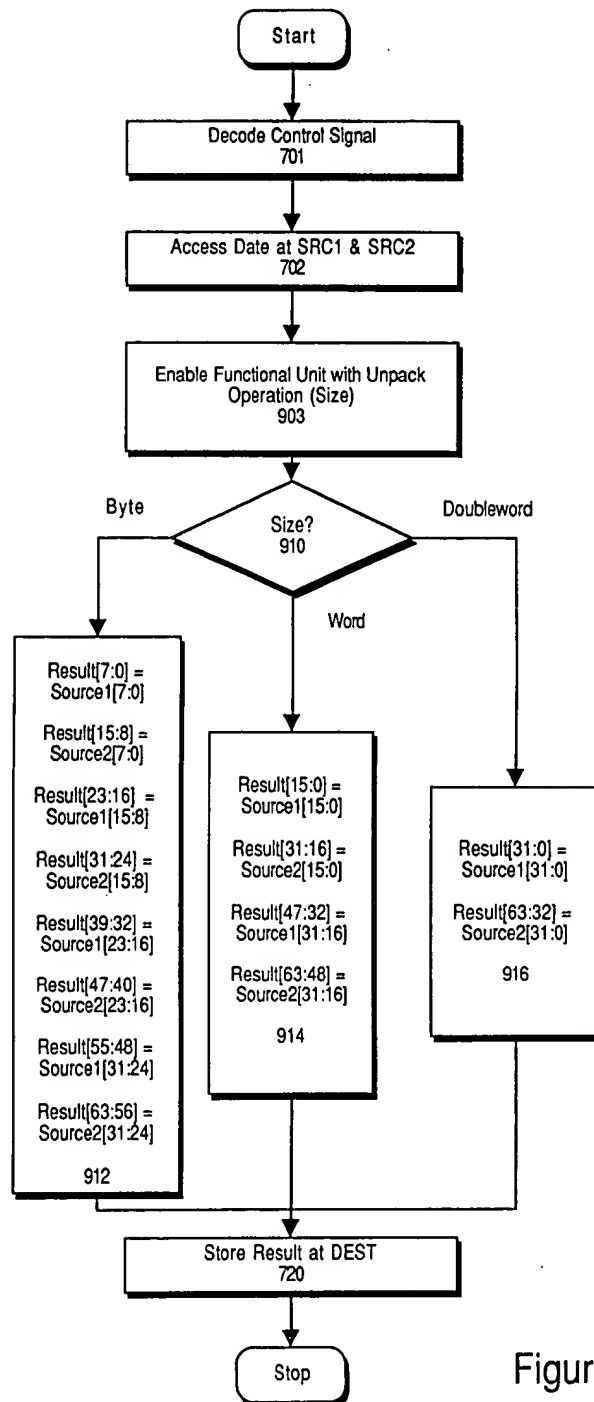


Figure 9

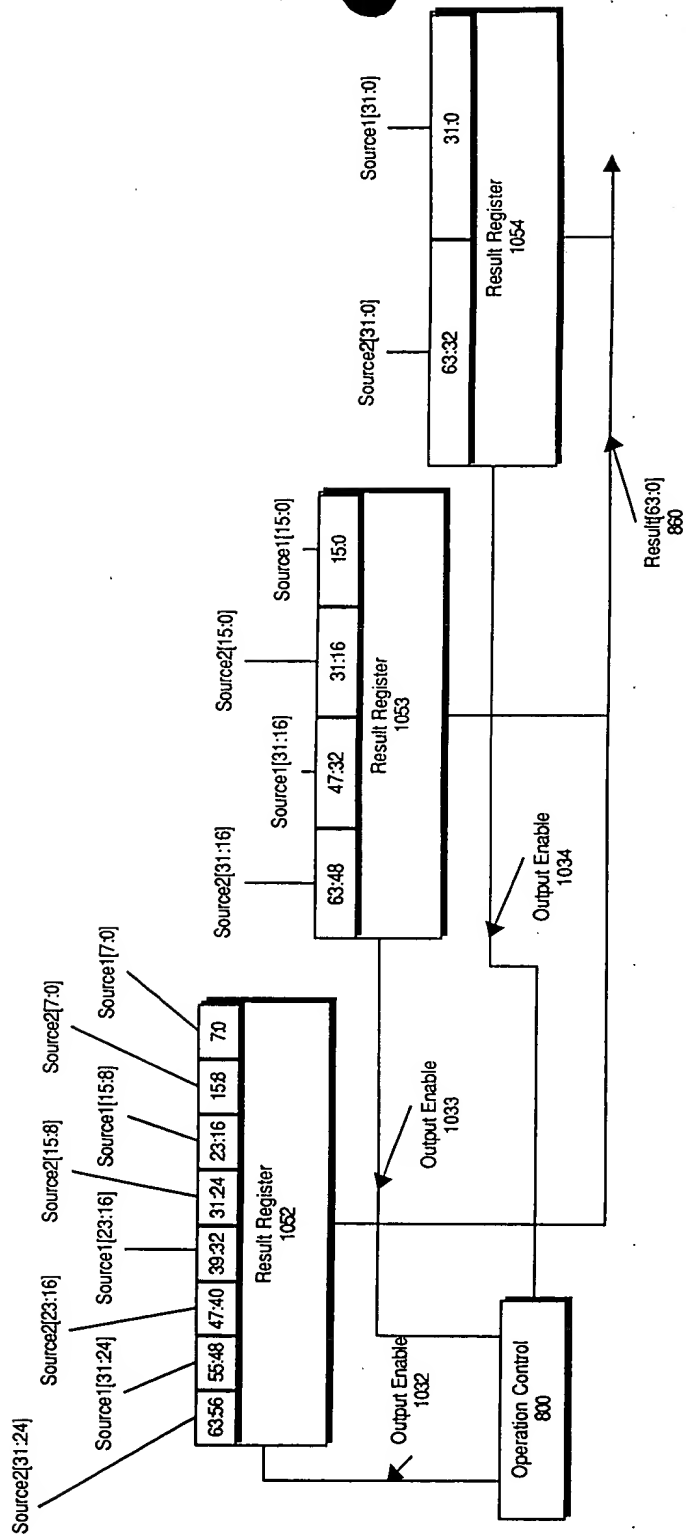


Figure 10